

## ABSTRACT

A conjugate of a histone moiety covalently attached to a macromolecule-of-interest, in which the histone moiety is transportable through the cell membrane and importable into the cell nuclei, is disclosed. Further disclosed are chemical and recombinant methods of preparing such a conjugate, pharmaceutical compositions containing same and uses thereof for delivering therapeutically active macromolecules into cells. A novel method for quantitatively determining a cytoplasmic uptake and/or a nuclear uptake of a moiety into cells is also disclosed.